

IN THE SPECIFICATION: Please amend the specification as follows, illustrated below in "clean" format:

Page 4, lines 11-16:

Thus, exhaust gas is catalytically treated as it flows through the substrate material within the catalytic converter. The substrate 20 may contain any catalyst material sufficient to convert fuel rich gasses to acceptable levels as is known in the art. Preferably, substrate 20 is coated with three-way catalysts to convert nitrous oxides, carbon monoxide, and hydrocarbons to nitrogen, water, and carbon dioxide. Optionally, the substrate 20 may contain an oxidation catalyst.

Page 5, lines 20-29:

The particularly preferred structural support for securing an end plate 30 to a substrate 20 prior to size reduction of an outer shell 50 to the assembly is a securing mechanism 32 affixed to an inner side of the end plate. The securing mechanism 32 is made of a material suitable for use in high temperature environments and is of a diameter greater than that of the catalyst substrate 20. This allows for the securing mechanism 32, which can have any appropriate geometry such as annular, conical, cylindrical or other, to extend around an annular end portion of the substrate 20, as is shown in Figure 1, forming a gas shield to protect optional insulation material in the annulus of the end plenum 64 area.

Page 6, line 7:

Figures 2 and 3 show a preferred shape and design for end plates used with the present invention. The catalytic converter design of the present invention advantageously allows for construction of a compact, cleanly assembled converter using the preferred, flat end plates. Each of these preferred endplates has, defined at any point within the

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plate, annular opening 34 for connection with exhaust piping (not shown) carrying exhaust gasses. Further, each endplate preferably has, welded or otherwise permanently affixed to an outer periphery of one side of the flat end plate, an annular ring 32. In this, annular ring 32 may be affixed to an endplate by any known method, but is preferably securely affixed by tack welding.

Page 7, lines 6-12:

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Where the preferred end plate support mechanism (or annular ring) 32 is used, the mat 40 is wrapped over at least the portion of the support mechanism 32 extending around the annular end of the substrate 20 such that the mat 40 holds the extended portion between the mat and the substrate. This orientation functions to hold the end plates in a particular position and orientation prior to insertion of the wrapped assembly (substrate, end plates and mat) into an oversized shell 50.

Page 7, lines 19-24:

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Intumescent mat 40 is preferably wrapped in a sufficient width to fully insulate end plenums 64 of the converter at operating temperatures thereby providing lifetime and durability to those portions of the converter. As such, intumescent mat 40 should, in the particularly preferred embodiment utilizing an annular ring 32, substantially cover all of the annular ring (shown in Figure 4).

Page 8, lines 11-18

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Shell 50 may then be welded along the end plate seam to ensure converter integrity. In order to facilitate welding or otherwise securing the shell 50 to the end plates, as can be seen in Figure 5, the shell 50 preferably has a length less than the overall length of the catalytic converter. Essentially, the shell 50 preferably extends from point 36 on one end plate to point 38 on the opposing end plate. Points 36 and 38 can be

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located anywhere on the outer periphery of the end plates, with the points being disposed near the middle of the periphery typically preferred.
